user's manual

eng

NVDN-261H/IR
NVDN-241H/IR
NVDN-221H/IR
NVDN-201H/IR

NOVUS®

INFORMATION

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EMC (2004/108/EC) and LVD (2006/95/EC) Directives

CE Marking

Our products are manufactured to comply with the requirements of the following directives and national regulations implementing the directives:

- Electromagnetic compatibility EMC 2004/108/EC.
- Low voltage LVD 2006/95/EC with further amendment. The Directive applies to electrical equipment designed for use with a voltage rating of between 50VAC and as well as 75VDC and 1500VDC.

WEEE Directive 2002/96/EC

Information on Disposal for Users of Waste Electrical and Electronic Equipment

This appliance is marked according to the European Directive on Waste Electrical and Electronic Equipment (2002/96/EC) and further amendments. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product.
The symbol on the product, or the documents accompanying the product, indicates that this appliance may not be treated as household waste. It shall be handed over to the applicable collection point for used up electrical and electronic equipment for recycling purpose. For more information about recycling of this product, please contact your local authorities, your household waste disposal service or the shop where you purchased the product.

RoHS Directive 2002/95/EC

Out of concern for human health protection and friendly environment, we assure that our products falling under RoHS Directive regulations, regarding the restriction of the use of hazardous substances in electrical and electronic equipment, have been designed and manufactured in compliance with the above mentioned regulations. Simultaneously, we claim that our products have been tested and do not contain hazardous substances whose exceeding limits could have negative impact on human health or natural environment.

Information

The device, as a part of professional CCTV system used for surveillance and control, is not designed for self installation in households by individuals without technical knowledge.

The manufacturer is not responsible for defects and damages that result from improper or inconsistent with user's manual installation of the device in the system.

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IMPORTANT SAFEGUARDS AND WARNINGS

WARNING!

THE KNOWLEDGE OF THIS MANUAL IS AN INDESPENSIBLE CONDITION OF A PROPER DEVICE OPERATION. YOU ARE KINDLY REQUSTED TO FAMILIRIZE YOURSELF WITH THE MANUAL PRIOR TO INSTALLATION AND FURTHER DEVICE OPERATION.

WARNING!

USER IS NOT ALLOWED TO DISASSEMBLE THE CASING AS THERE ARE NO USER-SERVICEABLE PARTS INSIDE THIS UNIT. ONLY AUTHORIZED SERVICE PERSONNEL MAY OPEN THE UNIT

INSTALLATION AND SERVICING SHOULD ONLY BE DONE BY QUALIFIED SERVICE PERSONNEL AND SHOULD CONFORM TO ALL LOCAL REGULATIONS

WARNING!

PRIOR TO UNDERTAKING ANY ACTION THAT IS NOT DESCRIBED FOR THE GIVEN PRODUCT IN USER'S MANUAL AND OTHER DOCUMENTS DELIVERED WITH THE PRODUCT, OR IF IT DOES NOT ARISE FROM THE USUAL APPLICATION OF THE PRODUCT, MANUFACTURER MUST BE CONTACTED UNDER THE RIGOR OF EXCLUDING THE MANUFACTURER'S RESPONSIBILITY FOR THE RESULTS OF SUCH AN ACTION.

IMPORTANT SAFEGUARDS AND WARNINGS

1. Prior to undertaking any action please consult the following manual and read all the safety and operating instructions before starting the device.
2. Please keep this manual for the lifespan of the device in case referring to the contents of this manual is necessary;
3. All the safety precautions referred to in this manual should be strictly followed, as they have a direct influence on user's safety and durability and reliability of the device;
4. All actions conducted by the servicemen and users must be accomplished in accordance with the user's manual;
5. The device should be disconnected from power sources during maintenance procedures;
6. Usage of additional devices and components neither provided nor recommended by the producer is forbidden;
7. Mounting the device in places where proper ventilation cannot be provided (e. g. closed lockers etc.) is not recommended since it may lead to heat build-up and damaging the device itself as a consequence;
8. Mounting the camera on unstable surface or using not recommended mounts is forbidden. Improperly mounted camera may cause a fatal accident or may be seriously damaged itself. The camera must be mounted by qualified personnel with proper authorization, in accordance with this user's manual;

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IMPORTANT SAFEGUARDS AND WARNINGS

9. Device should be supplied only from a power sources whose parameters are in accordance with those specified by the producer in the camera technical datasheet. Therefore, it is forbidden to supply the camera from a power sources with unknown parameters, unstable or not meeting producer's requirements;
10. Signal cables (conducting TV or / and telemetric signal) should be placed in a way excluding the possibility of damaging them by accident. Special attention must be paid to cables getting from the camera and connecting the power supply;
11. To avoid equipment damage, whole TV circuit should be equipped with properly made discharge-, overload- and lightning protection devices. Usage of separating transformers is advised;
12. Electric installation supplying the device should be designed to meet the specifications given by the producer in such a way that overloading is impossible;
13. User cannot repair or upgrade the equipment himself. All maintenance actions and repairs should be conducted only by qualified service personnel;
14. Unplug the camera from the power source immediately and contact the proper maintenance department when the following occurs:

- Damages to the power cord or to the plug itself;
- Liquids getting inside the device or exposure to strong mechanical shock;
- Device behaves in a way not described in the manual and all adjustments approved by the manufacturer and possible to apply by user himself, seem not to have any effect;
- Camera is damaged;
- Atypical behaviour of the camera components may be seen (heard).

16. In necessity of repairs attention to using only original replacement parts (with their parameters in accordance with those specified by the producer) should be paid. Non-licensed service and non-genuine replacement parts may cause fire or electrocution;
17. After maintenance activities tests should be run to ensure proper operation of all the functional components of the device.

Attention!
Technical changes reserved without prior notice and printing errors possible.

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1. FOREWORD INFORMATION

1.1 Package contents

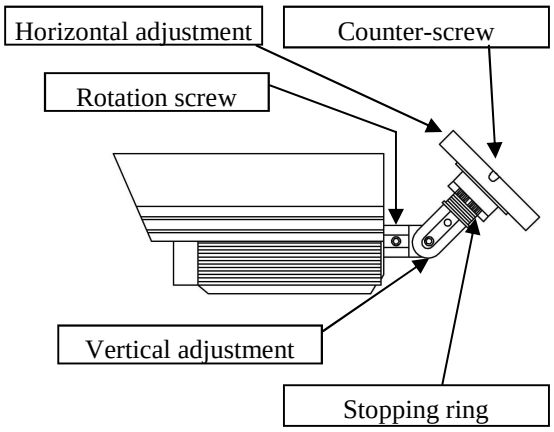
- Camera with power and video cables
- Sunshield
- Bracket
- User's manual
- 3 screws, 3 plastic anchors (4 screws / 4 anchors in NVDN-261H/IR)
- Guide pattern
- Allen key

1.2 Features

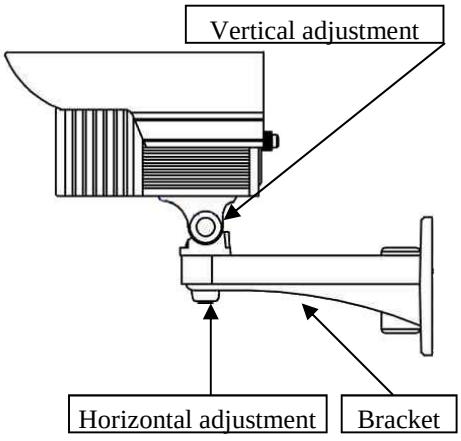
- Mechanical IR cut filter
- IR operation capability
- Horizontal resolution: up to 650 TVL in color mode and up to 700 TVL in B/W mode
- Min. illumination from 0.068 lx/F=1.4 (0 lx IR on) (NVDN-261H/IR, NVDN-241H/IR)
  0.089 lx/F=1.6 (0 lx IR on) (NVDN-221H/IR)
  0.14 lx/F=2.0 (0 lx IR on) (NVDN-201H/IR)
- Lens type: Varifocal f=2.8-11mm (NVDN-261H/IR, NVDN-241H/IR)
  Varifocal f= 3.5~8mm (NVDN-221H/IR)
  Standard f=3 mm (NVDN-201H/IR);
- 12 VDC +/- 10% power supply

1.3 Overwiev of the cameras and wall brackets

NVDN-221H/IR / NVDN-241H/IR / NVDN-201H/IR



NVDN-261H/IR



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SPECIFICATIONS

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1.4 Specifications

MODEL	NVDN-261H/IR	NVDN-221H/IR	NVDN-241H/IR	NVDN-201H/IR
IMAGE				
Pick-up element	1/4" CMOS imager			
Number of Effective Pixels	720(H) x 576 (V)			
Horizontal resolution	650 TVL - color mode, 700 TVL - B/W mode			
Min. illumination	0.068 lx/F=1.4 0 lx (IR on)	0.089 lx/F=1.6 0 lx (IR on)	0.068 lx/F=1.4 0 lx (IR on)	0.14 lx/F=2.0 0 lx (IR on)
S/N Ratio	> 46 dB			
Electronic shutter	Auto: 1/50-1/100,000 s			
LENS				
Lens type	Varifocal, f=2.8 ~ 11 mm/F=1.4	Varifocal, f=3.5 ~ 8 mm/F=1.6	Varifocal, f=2.8 ~ 11 mm/F=1.4	Standard , f=3 mm/F=2.0
Angle of view (H)	76° ~ 22°	57° ~ 26°	76° ~ 22°	63°
DAY/NIGHT				
Type	Mechanical IR cut filter			
Switching Mode	Auto			
Visible Light Sensor	Yes			
IR LED				
Number	76	42		24
IR effective range	20 m	25m	20 m	15 m
IR illumination angle	120°	80°	120°	80°
INTERFACES				
Video output	BNC. 1.0 V_{p-p}, 75 Ω			
INSTALLATION PARAMETERS				
Dimensions (mm)	162(L) x 100 (W) x 90 (H)	145(L) x 88 (W) x 83 (H)		102(L) x 62 (W) x 58 (H)
Weight	1,3 kg	830 g		590 g
Enclosure	Aluminium, ivory, fully cable manged bracket in-set included			
Power supply	12 VDC +/- 10%			
Power consumption	9 W	4,5 W		3,5 W
Operating temperature	-30ºC ~ 40ºC			
Degree of protection	IP 66			

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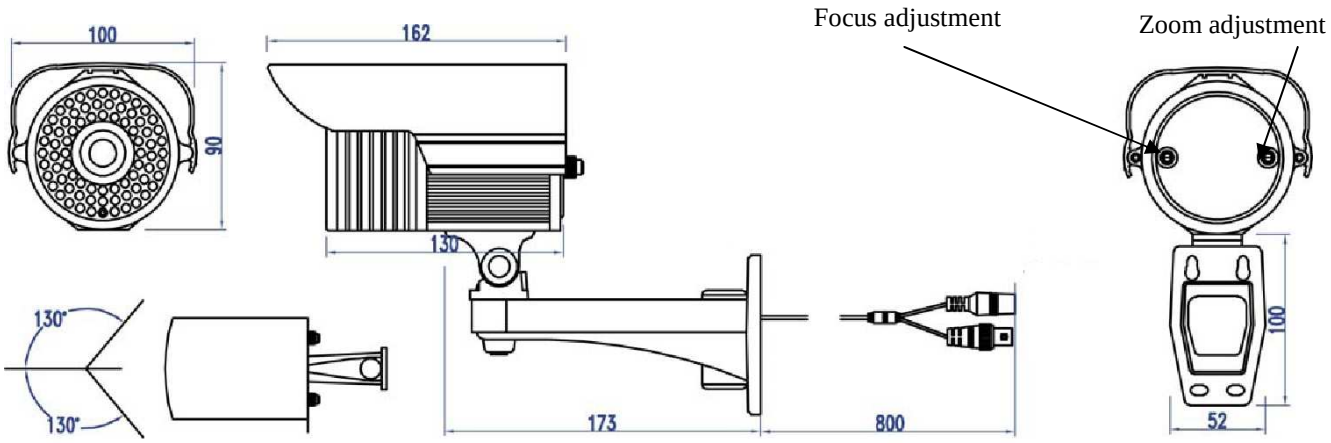
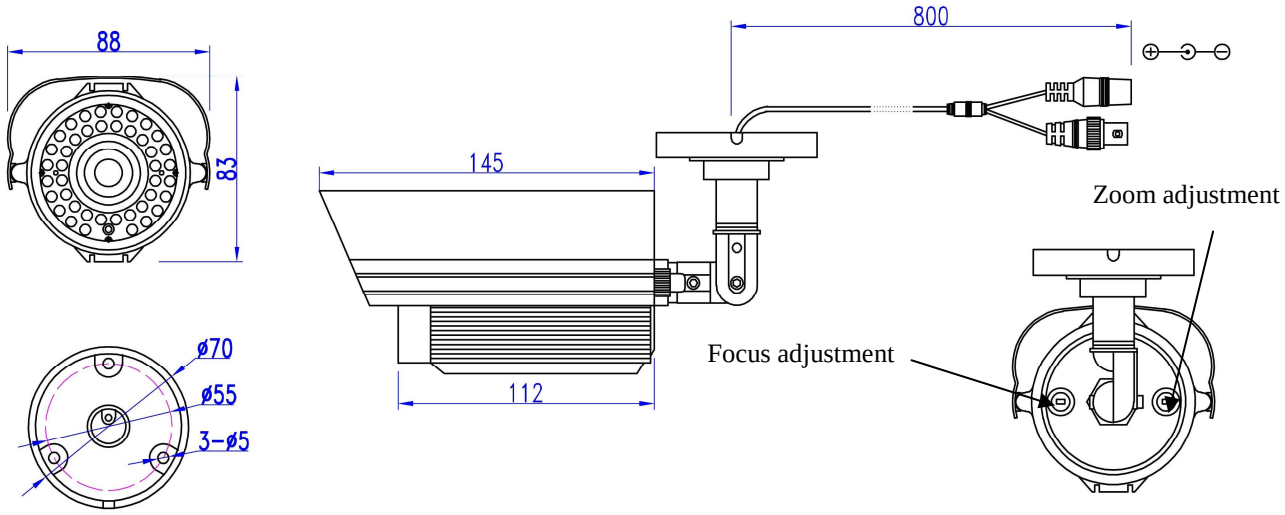
SPECIFICATIONS

1.5. DIMENSIONS

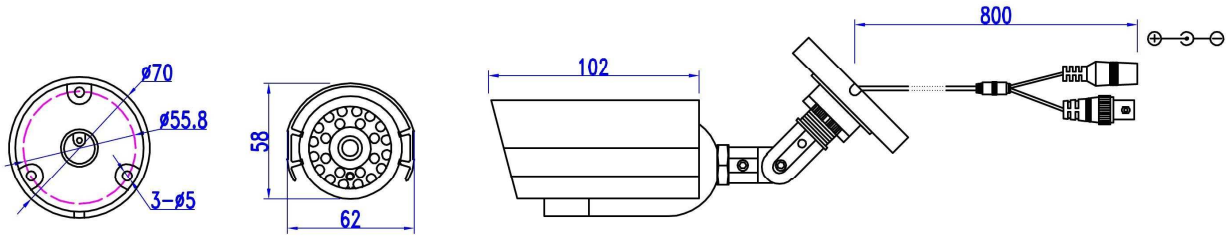
NVDN-261H/IR



NVDN-221H/IR / NVDN-241H/IR



NVDN-201H/IR



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INSTALLATION

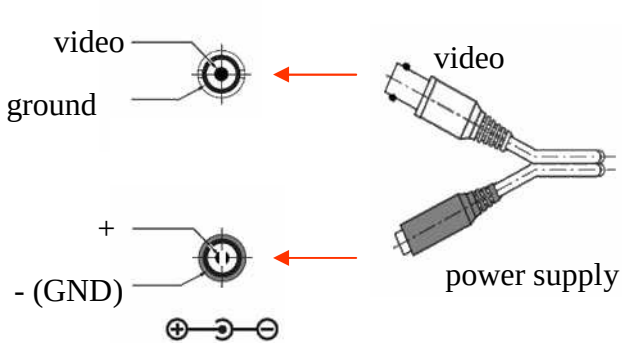
2. INSTALLATION

2.1 Mounting the camera

- Using the guide pattern attached, please mark the planned drill holes for wall anchors (and additional drill hole for the cables). Please ensure that the surface chosen for drilling is an even one.
- Drill the mounting (and cable) holes using appropriate drills (when mounting to surfaces other than concrete ceiling/walls please equip yourself with appropriate screws/anchors)
- Put the video and power cables through a cable hole.
- Screw the bracket of the camera using appropriate screws.
- Adjust the viewing direction/angle of the camera, adjust the sunshield, lock the desired position using proper screws/stopping rings
- Unscrew caps located at the rear of the camera, adjust zoom, focus and iris level (in models that are equipped in aforementioned features). It is recommended to check focus settings in infrared illumination and make correction in color mode to have proper focus in both modes. (NVDN-221H/IR, NVDN-261H/IR, NVDN-241H/IR)
- Screw the caps back on.

2.2 Connections

The camera is equipped with a video and power cable finishing with 2 plugs, one for video output, while the second is the power supply plug. Images below show plug polarization.



The following connecting order should be kept:

- connect the video cable to the BNC plug
- connect the 12V DC +/-10% power supply to the power plug

ATTENTION: Prior to connecting the power supply, please make sure that all required parameters (output voltage, output current and polarization) are correct. Using improper power supply may cause malfunction or camera damage. In such a case, warranty is void.

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NOTES

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